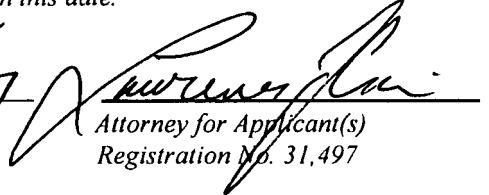


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Uwe FORSTER et al.  
Serial No.: 10/578,293  
Conf. No.: 6915  
Filed: January 25, 2007  
For: HEAT EXCHANGER AND  
COLLECTOR/DRIER UNIT FOR A  
HEAT EXCHANGER  
Art Unit: 3744  
Examiner: To Be Determined

*I hereby certify that this paper is being deposited with the United States Postal Service as FIRST-CLASS mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this date.*

10/10/07  
Date  
  
Attorney for Applicant(s)  
Registration No. 31,497

INTERNATIONAL PRELIMINARY REPORT TRANSMITTAL

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

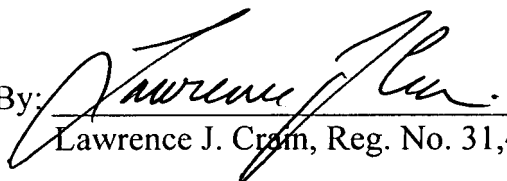
Dear Sir:

Enclosed is the English Translation of the International Preliminary Report of the International Bureau of WIPO for the above-identified application.

Respectfully submitted,

300 South Wacker Drive – Suite 2500  
Chicago, Illinois 60606  
Telephone: (312) 360-0080  
Facsimile: (312) 360-9315  
Customer Number 24978  
P:\DOCS\2322\75089\C27106.DOC

GREER, BURNS & CRAIN, LTD.

By:   
Lawrence J. Crain, Reg. No. 31,497

**PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

To:

WALLINGER, Michael  
European Patent Attorney  
Zweibrückenstrasse 2  
80331 München  
ALLEMAGNE

EINGEGANGEN/RECEIVED

15. Sep. 2006

Wallinger & Partner  
VT: ..... LT: .....

Date of mailing (day/month/year)  
08 September 2006 (08.09.2006)

Applicant's or agent's file reference  
6285P334-PCT /ak

**IMPORTANT NOTIFICATION**

International application No.  
PCT/EP2004/012932

International filing date (day/month/year)  
15 November 2004 (15.11.2004)

Applicant

BEHR GMBH &amp; CO. KG et al

**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

**2. Transmittal of the copy of the translation to the designated or elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Ellen Moyse

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 6285P334-PCT /ak	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/EP2004/012932	International filing date ( <i>day/month/year</i> ) 15 November 2004 (15.11.2004)	Priority date ( <i>day/month/year</i> ) 14 November 2003 (14.11.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant BEHR GMBH & CO. KG			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 10 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Date of issuance of this report 29 August 2006 (29.08.2006)
	Authorized officer  Ellen Moyse  e-mail: pt05@wipo.int

# PATENT COOPERATION TREATY

TRANSLATION

From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing **See form PCT/ISA/210**  
(day/month/year)

Applicant's or agent's file reference  
**6285P334-PCT /ak**

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
**PCT/EP2004/012932**

International filing date (day/month/year)  
**15.11.2004**

Priority date (day/month/year)  
**14.11.2003**

International Patent Classification (IPC) or both national classification and IPC  
**F25B39/04**

Applicant  
**BEHR GMBH & CO. KG**

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/012932

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/012932

<b>Box No. V</b>	<b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>		
<b>1. Statement</b>			
Novelty (N)	Claims	2, 3, 5-24, 31-34	YES
	Claims	1, 4, 25-30	NO
Inventive step (IS)	Claims		YES
	Claims	1-34	NO
Industrial applicability (IA)	Claims	1-34	YES
	Claims		NO
<b>2. Citations and explanations:</b>			
<p>1      Reference is made to the following document:</p> <p align="center">D1 : WO 02/18853 A</p>			
<p>2      The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1, 4 and 25-30 is not novel within the meaning of PCT Article 33(2)).</p> <p align="center">Document D1 discloses (the references between parentheses apply to said document):</p>			
<p>2.1    Claim 1 - A collection container (25, figure 3) for a heat exchanger, in particular for a refrigerant condenser in a motor vehicle (page 5, lines 6-7), the collection container (25) comprising at least one inlet (23, 24) for a fluid, in particular a refrigerant, and the collection container (25) comprising at least one outlet (23, 24) for said fluid. In addition, the outer covering (3) of the collection container (25), when viewed in perpendicular cross-section in relation to the longitudinal direction of the</p>			

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/012932

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

collection container (25), delimits respective cross-sectional surfaces of the interior, and the surface area of said cross-sectional surfaces of the interior that are delimited by the outer covering (3) differs in size in at least two cross-sections that are located at a distance from one another in the longitudinal direction of the collection container (25) (figure 3).

- 2.2 Claim 4 - A collection container (25, figure 3) for a heat exchanger, in particular for a refrigerant condenser in a motor vehicle (page 5, lines 6-7), the collection container (25) comprising at least one inlet (23, 24) for a fluid, in particular a refrigerant, and the collection container (25) comprising at least one outlet (23, 24) for said fluid. In addition, the outer covering (3) of the collection container (25) has one or more portions in the longitudinal direction of the collection container in which the outer surface of the outer covering (3) is round or cylindrical in shape (figures 4 and 5), or in which the outer surface of the outer covering (3) is round or cylindrical in shape throughout the longitudinal direction (figures 4 and 5). Along the entire length and in the longitudinal direction of the collection container (25), there are at least two different outer diameters of the outer covering (3) or of the outer surface of the collection container (25) (figure 3).

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/012932

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
2.3	Claim 25 - Heat exchanger, in particular a refrigerant condenser of a motor vehicle (page 5, lines 6-7), wherein said heat exchanger has a collection container as set forth in claim 1.
2.4	Claim 26 - A heat exchanger that has a block of pipes or a block of pipes/ribs with a plurality of pipes substantially parallel at least in portions, and ribs disposed between said pipes (figure 3), the first ends are received by a first collection pipe (20, 21, 22) and the collection container (25) being disposed parallel to said first collection pipe (20, 21, 22), the first collection pipe (20, 21, 22) having at least two openings (23, 24), one of which being in fluid connection with the inlet of the collection container (25) and one being in fluid connection with the outlet of the collection container (25), such that an overflow opening or overflow passageways are formed to enable a flow of fluid or refrigerant from the first collection pipe into the collection container (25) and vice versa (figure 3).
2.5	Claim 27 - A heat exchanger, wherein a second collection pipe is (implicitly) provided that receives the second ends of the pipes in the block of pipes or block of pipes/ribs.
2.6	Claim 28 - A heat exchanger, wherein all the pipes in the block of pipes or block of pipes/ribs are straight.



WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/012932

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
2.7	<p>Claim 29 - A heat exchanger, wherein the heat exchanger is a condenser, in particular a refrigerant condenser (claims 30 and 31) and includes partition walls (8) in the first and in the second collection pipe (20, 21, 22) which are disposed in such a manner that the medium, in particular a refrigerant, flows back and forth between the collection pipes (20, 21, 22) through the pipes (10) of the pipe/rib block, and multiple times in particular (figure 3).</p>
2.8	<p>Claim 30 - A heat exchanger, in particular a condenser, comprising two collection pipes (20, 21, 22) in fluid connection via the pipes (10) of a pipe/rib block, in particular with refrigerant, wherein partition walls (18) are disposed inside the collection pipes (20, 21, 22) for define separate chambers in the respective collection pipe (20, 21, 22), the hot gas inlet (23, 24) and the refrigerant path (23, 24) being disposed immediately adjacent to each other (figure 3).</p>
3	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 2, 3, 5-24 and 31-34 is not based on inventive step within the meaning of PCT Article 33(3).</p>
3.1	<p>Dependent claims 8, 11, 14, 17 and 19 do not contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements for novelty or inventive</p>

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/012932

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

step. Such dependent claims concern only minor structural modifications of the collection container according to claim 1, of the kind that a person skilled in the art routinely makes on the basis of familiar considerations, especially since the resulting advantages are readily foreseeable. Therefore, the subject matter of claims 8, 11, 14, 17 and 19 also does not involve an inventive step.

3.2 Features 2, 3, 5-7, 9, 10, 12, 13, 15, 16, 18 and 20-24 constitute only one of several obvious possibilities from which a person skilled in the art would choose according to the circumstances without being inventive.

3.3 The features of claims 31-34 are only one of several obvious possibilities from which a person skilled in the art would choose according to the circumstances, without thereby being inventive, in order to prevent the free end from unwinding.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/012932

Box No. VIII      Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 4, 8, 11, 14, 17, 19, 30 and 31 can be interpreted as independent claims. The phrase "in particular according to claims..." is unclear, and for this reason the claims are not concisely worded and do not satisfy the requirements of PCT Article 6.

However, they do appear to relate to one and the same subject matter and obviously differ from one another only by virtue of divergent definitions of the subject matter for which protection is sought, or only in the terminology used for the features of this subject matter.

If such claims are viewed as independent claims, there may be a lack of unity of invention (PCT Rule 13.1).

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2004/012932

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: